

DR. EVA C. HERBST

PEER-REVIEWED PUBLICATIONS * DENOTES CO FIRST AUTHOR

- 2024 | Akgun D, Gebauer H, Paksoy A, Schafer F, Herbst E, Karczewski D, Pastor MF, Moroder P. Patients with constitutional static posterior shoulder instability (Type C1) show significant differences in osseous shoulder morphology, scapulothoracic orientation, and muscle volume compared to healthy controls. [Am. J. Sports Medicine](#).
- 2023 | Merten LJF, Manafzadeh AR, **Herbst EC**, Amson E, Tambusso PS, Arnold P, Nyakatura JA. The functional significance of aberrant cervical counts in sloths: insights from automated exhaustive analysis of cervical range of motion. [Proc. R. Soc. B](#).
- 2023 | **Herbst EC***, Evans LA*, Felder AA, Javaheri B and Pitsillides AA. 3D profiling of mouse epiphyses across ages reveals new potential imaging biomarkers of early spontaneous osteoarthritis. [J. Anat](#)
- 2023 | Demuth OE, **Herbst EC**, Polet DT, Wiseman ALA, Hutchinson JR. Modern three-dimensional digital methods for studying locomotor biomechanics in tetrapods. [J. Experimental Bio.](#)
- 2022 | **Herbst EC**, Lautenschlager S, Fioritti N, Meade L, Scheyer TM. A toolbox for the retrodeformation and muscle reconstruction of fossil specimens in Blender. [Royal Society Open Science](#)
- 2022 | **Herbst EC**, Eberhard E, Richards C, Hutchinson JR. In vivo and ex vivo range of motion in the fire salamander *Salamandra salamandra*. [J. Anat.](#)
- 2022 | **Herbst EC***, Eberhard E*, Hutschinson JR, Richards CS. Spherical frame projections for visualizing joint range of motion, and a complementary method to capture mobility data. [J. Anat.](#)
- 2021 | **Herbst EC**, Lautenschlager S, Bastiaans D, Miedema F, Scheyer TM. Modeling tooth enamel in FEA comparisons of skulls: comparing common simplifications with biologically realistic models. [iScience 24\(11\)](#)
- 2021 | **Herbst EC**, Felder AA, Evans LAE, Ajami S, Javaheri B, Pitsillides AA. A new straightforward method for semi-automated segmentation of trabecular bone from cortical bone in diverse and challenging morphologies. [Royal Society Open Science 8\(8\)](#), figure featured on [journal cover](#).
- 2020 | Ortega-Jimenez VM, **Herbst EC**, Leung MS, and Dudley R. Natural barriers: waterfall transit by small flying animals. [Royal Society Open Science 7201185](#)
- 2019 | **Herbst EC**, Doube M, Smithson TR, Clack J, and Hutchinson JR. Bony lesions in early tetrapods and the evolution of mineralized tissue repair. [Paleobiology 45\(4\)](#)
- 2018 | **Herbst EC** and Hutchinson JR. New insights into the morphology of the Carboniferous tetrapod *Crassigyrinus scoticus* from CT. [Earth Environ. Sci. Trans. R. Soc. Edinb. 109\(1-2\)](#)